

U.S. Department of Commerce, Patent and Trademark Office		Bucket No.	Serial No.
(PTO Form 1449 modified)		AMAT/1931.P1	10/052,681
<b>LISTS OF PATENTS AND PUBLICATIONS CITED BY APPLICANT</b>		Applicant Xi, et al.	Confirmation No.: 4083
(Use several sheets if necessary)		Filing Date	Group
Examiner Unknown		January 17, 2002	2814

**U.S. Patent Documents**

Examiner Initial		Document Number	Issue Date	Applicant(s) Name	Class	Subclass	Filing Date If Appropriate
GP	A14	6,164,138	12-26-2000	Blake, et al.	73	732	03-31-1998
GP	A15	6,164,128	12-26-2000	Santa Cruz, et al.	73	170.11	10-13-1999
GP	A16	6,157,081	12-05-2000	Nariman, et al.	257	752	03-10-1999
GP	A17	6,157,061	12-05-2000	Kawata	257	316	08-27-1998
GP	A18	6,143,646	11-07-2000	Wetzel	438	637	06-03-1997
GP	A19	6,023,102	02-08-2000	Nguyen, et al.	257	774	10-08-1998
GP	A20	6,017,817	01-25-2000	Chung, et al.	438	637	05-10-1999
GP	A21	5,993,916	11-30-1999	Zhao et al.	427	535	09-22-1997
GP	A22	5,930,669	07-27-1999	Uzoh	438	627	04-03-1997
GP	A23	5,846,332	12-08-1998	Zhao et al.	118	728	07-12-1996
GP	A24	5,674,787	10-07-1997	Zhao, et al.	437	230	01-16-1996
GP	A25	5,654,232	08-05-1997	Gardner	438	661	03-15-1996
GP	A26	5,613,296	03-25-1997	Kurino et al.	29	852	04-13-1995

**Foreign Patent Documents**

Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							YES	NO
	B4							
	B5							
	B6							

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GP	C4 ✓	Tadashi Iijima, Yoshiakai Shimooka, and Kyoichi Suguro, "An Amorphous Ti-Si-N Diffusion Barrier Layer for Cu Interconnections," Vol. 78, No. 12, 1995, pages 67-74
GP	C5 ✓	Mikagi H. Ishikawa, T. Usami, M. Suzuki, K. Inoue, N. Oda, S. Chikaki, I. Sakai and T. Kikkawa. "Barrier Metal Free Copper Damascene Interconnection Technology Using Atmospheric Copper Reflow and Nitrogen Doping in SiOF Film. 1996 IEEE. Pp. 365-368
GP	C6 ✓	Y. Shacham-Diamand, V. Dubin, and M. Angyal "Electroless Copper Deposition for ULSI" 1995 Elsevier Science S.A., pp. 93-103
Examiner	GP Pratta	
	Date Considered	6/11/03

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

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JP	A1	6,309,801	10-30-2001	Meijer, et al.	430	313	06-03-1999
JP	A2	6,274,483	08-14-2001	Chang, et al.	438	640	01-18-2000
JP	A3	6,271,592	08-07-2001	Kim, et al.	257	751	08-06-1999
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JP	A5	6,268,283	07-31-2001	Huang	438	638	02-09-1999
JP	A6	6,265,757	07-24-2001	Brady, et al.	257	623	11-09-1999
JP	A7	6,229,174	05-08-2001	Parekh	257	306	12-08-1997
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JP	A11	6,184,138	02-06-2001	Ho, et al.	438	687	09-07-1999
JP	A12	6,184,128	02-06-2001	Wang, et al.	438	637	01-31-2000
JP	A13	6,166,423	12-26-2000	Gambino, et al.	257	532	10-22-1999

**Foreign Patent Documents**

Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							YES	NO
JP	B1	JP 08-213,119 Abstract Only	07-24-1996	JP	H01L	21/768		X
	B2							
	B3							

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Examiner Initial		Including Author, Title, Date, Pertinent Pages, Etc.
JP	C1	R.F. Bunshah, "Handbook of Deposition Technologies for Films and Coatings", 2 <sup>nd</sup> edition, Noyas Publications, NJ, USA, 1994, 261, 321-325.
JP	C2	Gardner et al., "Encapsulated Copper Interconnection Device using Sidewall Barriers", Thin Solid Films 262 (1995) 104-119.
JP	C3	Jang et al., "Tantalum and Niobium as a Diffusion Barrier between Copper and Silicon", J. Materials Science: Materials in Electronics 7 (1996) 271-278.
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gp	A29	5,486,492	01-23-1996	Yamamoto et al.	437	192	10-29-1993
gp	A30	5,371,042	12-06-1994	Ong	437	194	06-16-1992
gp	A31	5,354,712	10-11-1994	Ho et al.	437	195	11-12-1992
gp	A32	5,308,793	05-03-1994	Taguchi et al.	437	194	07-22-1992
gp	A33	5,186,718	02-16-1993	Tepman, et al.	29	25.01	04-15-1991
gp	A34	5,178,739	01-12-1993	Barnes et al.	204	192.12	09-25-1991
gp	A35	4,962,060	10-09-1990	Sliwa, et al.	437	192	05-02-1989
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	A37						
	A38						
	A39						

**Foreign Patent Documents**

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							YES	NO
	B07							
	B08							
	B09							

**OTHER ART**

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gp	C7 ✓	Electromigration and Diffusion in Pure Cu and Cu(Sn) Alloys. C. K. Hu, K. L. Lee, D. Gupta, and P. Blauner, Mat. Res. Soc. Symp. Vol 427 (96-105)
gp	C8	Electromigration Failure Distributions for Multi-Large Interconnects as a Function of Line Width Experiments and Simulation, D.D. Brown, J.E. Sanchez, Jr., V. Pham, P.R. Besser, M.A. Korhonen, and C.Y. Li, Mat Res. Soc. Symp. Vol 427
gp	C9 ✓	USSN Serial No.: 09/635,738, Chen, et al., "Barrier Layer Structure for Copper Metallization and Method of Forming the Structure," Filed: August 09, 2000.
Examiner	Date Considered 6/11/03	

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